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(54) Title: POROUS METALS AND METAL COATINGS FOR IMPLANTS

(57) Abstract: The invention is directed to a method of preparing porous metals, as well as to these porous metals *per se*. More in particular the invention is directed to the use of these porous metals in the preparation of medical items, such as implants. The invention further relates to a method of providing a porous metal coating on a substrate, in particular on the surface of a medical item, such as an implant or scaffold for tissue engineering. According to the method of the invention, a polymeric foam is impregnated with a slurry of metal particles, such as titanium, tantalum, titanium alloy or tantalum alloy particles. The impregnated foam is subsequently dried and subjected to pyrolysis and subsequent sintering. Due to the presence of metal hydrides, the formation of undesired compounds, such as metal oxides or nitrides, is avoided.